**IT Applications Unit 3, AOS 1, Online Communities**

1. Complete the following, from pgs, 18-28: **Network hardware and software**

**Networks are classified according to below and we will study the following:**

1. **Network Categories: LAN, WAN**
2. **Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet**
3. **Network communication standards**
4. **Network hardware and software**
5. **Transmission media**
6. **Network security**

**Network hardware and software**

**Network Operating systems**

1. Describe the role of the network operating system.

The role of the network operating system is the software controlling traffic on the network.

1. What are the typical tasks of network server software?

The typical tasks of the network server software is controls windows, controls file access, tracks users, authenticates access to the network server.

1. What is the role of network client software?

The role of the client server is on each workstation established a connection through NIC.

1. List the 3 providers of network operating systems.

Three providers of network operating:

* Web browser
* Electrical Email
* Videoconferencing

**Web client software**

1. List the typical client software

* Instant ant email
* Chat room

**Software for setting up websites**

1. Describe the role of http protocol.

The role of http protocol is the standard for transmitting and receiving information on the internet.

1. What is the role of web server software?

The web server software e.g Microsoft internet information services. This provides content in form of html.

1. What is the role of a proxy server?

A proxy server is a server that acts as an intermediary for requests from clients seeking resources from other servers. A client connects to the proxy server, requesting some service, such as a file, connection, web page, or other resource, available from a different server.

* 1. What are the advantages of using a proxy server?

The advantages of using a proxy server are:

* To keep machines behind it anonymous
* To speed up access to resources
* To apply access policy to network services or content
* To bypass security/ parental controls.
* To scan transmitted content for malware before delivery.

1. Describe the role of the following software:
   1. SMTP

Simple mail transfer protocol is used on electronic mail server to handle the sending and receiving of client emails.

* 1. POP3

Is a protocol that stores messages.

* 1. FTP

Software enables exchanges of files between computers on the internet.

* 1. Web software applications

Is a program designed for use on a website and include blogging software forums and wikis.

**Cross-platform web software**

1. What is meant by a Cross-platform application? List egs.

A cross platform application program runs identically on all machines regardless of operating system and hardware architecture. Flash and java are cross platform application.

1. What is adobe flash?

Adobe Flash is a software tool that enables website development to combine interaction content with text.

**Network Hardware**

Describe the characteristics and role of the following network hardware devices:

1. Network interface card

Is a computer chip that in the past was mounted on a separate add-in card to give the device access to a network and now is built into the motherboard.

1. Wireless access point

Is a central communication device that allows computers and devices to transfer data wirelessly to a wired network.

1. Switches
2. Switches store the address of every device and are capable of inspecting packets as they are received, determining the source and destination device of each packet, and forwarding them appropriately. By delivering messages only to the connected device intended, a network switch conserves network bandwidth
3. Routers

A router determines the best path for packets to follow on their way to their destination. A router is often used to connect two or more LANs.

1. modems

A modem is a communication device that converts a computers digital signal into an analog signal.

For each of the following modem types, in a table indicate the following:

Modem download speed

i) dial up modem

ii) digital modems:

* + 1. DSL
    2. ADSL & ADSL 2 +

iii) cable modems

6 How does a digital modem differ from a dial-up modem?